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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/801,610	03/17/2004	Hisakatsu Yamaguchi	108390-00061	1910
4372	7590	11/01/2007		
ARENT FOX LLP 1050 CONNECTICUT AVENUE, N.W. SUITE 400 WASHINGTON, DC 20036			EXAMINER TSE, YOUNG TOI	
			ART UNIT	PAPER NUMBER
			2611	
			NOTIFICATION DATE	DELIVERY MODE
			11/01/2007	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

DCIPDocket@arentfox.com  
IPMatters@arentfox.com  
Patent\_Mail@arentfox.com

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<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/801,610		YAMAGUCHI, HISAKATSU	
	<b>Examiner</b>		<b>Art Unit</b>	
	YOUNG T. TSE		2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 August 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 17-20 is/are rejected.
- 7) ☒ Claim(s) 9-16 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Drawings***

1. Figures 11, 14, 15 and 17 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

2. The disclosure is objected to because of the following informalities: on page 32, line 9, the letter "p" of the equation is undefined. Appropriate correction is required.
3. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

***Claim Objections***

4. Claims 4 and 9-16 are objected to because of the following informalities:

In claim 4, line 2, the term "supply circuit" should be deleted.

In claim 9, lines 3 and 12, the terms "receiving data" and "the data pattern received" appear to read "receiving the transmitted data" and "the data pattern transmitted", respectively.

In claim 9, line 1, "claim 9" should be "claim 11" in order to avoid the antecedent basis of "the amount of modulation" recited in line 4 of the claim; and line 4, "and/or" should be "or".

In claim 10, line 1, "claim 9" should be "claim 11" in order to avoid the antecedent basis of "the jitter generator control circuit" recited in line 2 of the claim.

In claim 13, both lines 2 and 5, the word "further" should be deleted; and line 10, "a contiguous sequence" should be "the contiguous sequence" for clarity.

In line 4 of both claims 14 and 15, "a contiguous sequence" should be "the contiguous sequence" for clarity.

Wherein the dependent claims 10 and 16 depend either directly or indirectly upon claim 9.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 18 and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In both claims 18 and 20, the second voltage controlled oscillator lacks connection or cooperation with the first voltage controlled oscillator or the precedent claim 1 or 5.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-2, 5-6, 18 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Weon (U.S. Patent No. 6,272,138).

Weon discloses an apparatus shown in Figure 1 for reducing jitter and wander on the internetworking between ATM network and PDH network. Also see col. 3, line 66 to col. 4, line 38.

Figure 2 illustrates the detailed embodiment of the timing recovery circuit 104 which is synchronized with the system clock of the ATM network shown in Figure 1. Also see col. 4, line 39 to col. 5, line 16.

Figure 3 illustrates detailed embodiments of the clock smoother and the jitter absorber shown in Figure 1. Also see col. 5, lines 17-21.

Figure 4 illustrates a flowchart of a method for reducing delay jitter or wander on internetworking between the ATM network and PDH network. Also see col. 5, lines 22-53.

Regarding claims 1 and 5, the timing recovery circuit 104 receives a system clock 206 generated from a system clock generation circuit (not shown) to generate a clock signal (201 or 205), wherein the system clock generation circuit could be, for example, from the ATM network; a jitter generator (104, 105) generates a jitter or wander in the clock signal (col. 5, lines 17-21) based on a setting signal (202) (col. 4, lines 16-22); and a data transmission circuit (101) transmits data in sync with the clock signal including the jitter (col. 2, line 64-col. 3, line 2) and provides synchronous timing to output data stream including jitter according to the clock signal (201 or 204).

Regarding claims 2 and 6, the jitter generator further adjusts the amount of modulation or the frequency of the jitter included in the clock signal to reduce the frequency of the jitter.

Regarding claims 18 and 20, the clock smoother 105 comprises a first voltage controlled oscillator (PLL 115) which receives the clock signal (201) including the jitter and a second voltage controlled oscillator 125 which controls the frequency of the PLL 115.

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 3-4 and 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weon in view of Little et al. (U.S. Patent No. 6,640,194, hereinafter "Little").

Regarding claims 3-4 and 7-8, although Weon does not explicitly show or suggest that the jitter generator supplies, as the jitter, at least any one of a sinusoidal jitter and a random jitter, however, Little teaches that the addition of sinusoidal jitter (col. 4, line 26) because sinusoidal jitter is a type of deterministic jitter and is therefore easier to predict and model it have advantageous modeling and determination properties.

Therefore it would have been obvious to one skilled in the art at the time of invention to incorporate the sinusoidal jitter as disclosed by Little into the invention of Weon.

11. Claims 17 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weon in view of Masuda et al. (U.S. Patent No. 6,791,623, hereinafter "Masuda").

Regarding claims 17 and 19, although Weon does not explicitly show or suggest the apparatus further comprises a selector selecting the clock signal including the jitter based on a control signal, however, Masuda discloses a selection circuit (733) in Figure 66 and teaches that the selection circuit (733) selects either a clock signal generated from the clock generator circuit (732) including jitter or a clock signal generated from the

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PLL circuit (731) including no jitter based on a control signal generated from the fitter detector (772) and the switch controller (771). See col. 47, lines 16-38.

Therefore it would have been obvious to one of a person skilled in the art to include a selector or switch circuit in Weon's apparatus to select the clock signal, for example, the clock signal of the PLL circuit 115 or the oscillator 125 either with or without jitter as taught by Masuda in order to synchronize the data signal of the apparatus and the ATM network by selecting an appropriate clock signal.

#### ***Allowable Subject Matter***

12. Claims 9-16 would be allowable if rewritten to overcome the objections set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

#### ***Conclusion***

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the



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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YOUNG T. TSE whose telephone number is (571) 272-3051. The examiner can normally be reached on Monday-Friday.

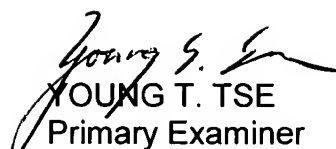
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad H. Ghayour can be reached on (571) 272-3021. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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YOUNG T. TSE  
Primary Examiner  
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